



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,462	07/23/2003	Richard John Szymanski	202-1197	1461
28395	7590	07/01/2005	EXAMINER	
BROOKS KUSHMAN P.C./FGTL 1000 TOWN CENTER 22ND FLOOR SOUTHFIELD, MI 48075-1238			SOOHOO, TONY GLEN	
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/604,462	SZYMANSKI, RICHARD JOHN
	Examiner Tony G. Soohoo	Art Unit 1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 March 2005.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Claim interpretation

1. With regards to claim 2, the claim points a functional usage of the components to be used in the apparatus system. Whereby the claims are not directed to a method claim. The functional use of a catalyst and base has been considered and deemed as providing little patentable significance to the structural scope defined by the claims.
2. With regards to claims 1 and 6, the recitation of "the mixing chamber being proximate a robot" and "disposed proximate a movable arm of the robot"; is deemed as being directed to the intended use environment of the subcombination thereby is afforded no patentable significance. Evidence is shown by the positive recitation of a robot and robot arm of claim 20, and the positive claim of claim 12 to a robot being attached to the mixing chamber.

Accordingly, with regards to claims 1-11 the claims is read in the broadest reasonable interpretation of to the subcombination of the dispensing/mix system whereby there is an ability to be mounted on or near a robot with an arm, and has been read as being not directed to the combination with a robot as presented in claims 12-20.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Thumm et al 6221332 in view of Rutter 3056591.

The Thumm (et al) reference discloses a two component dispensing/mixing system having a two component sources 162, 162'; a ram metering piston(s) 160, 160' to pressurize the source to flow into the flow meter 106, 106'; a flow meter 106, 106' with a pressure sensor 174, 174' located after the flow meter and that of the mixing chamber 120 and nozzle 121. The Thumm reference also discloses check valves 166, 166' between the supply and the metering ram, and a check valve 182, 182' and shut off valve 180, 180' between the flow meter and mixing chamber 120a. It is noted that the Thumm reference is functionally capable to have all of the elements to be mounted on any device or environment including a robot and arm if so desired.

The Thumm reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of the particular conduit connections being flexible or rigid.

It is noted that it is old and well known in the art of fluid pipeline connections to have flexible conduits and rigid conduits, whereby they all are known functional structural equivalents which provide a resistive structure to hold the flow of material. It is also old and well known in the art of fluid pipe conduits, that a flexible hose may provide ease installation and routing between obstructions, while a rigid conduit may provide a more effective structural integrity. It is also noted that all conduits provide resistance to expansion to some degree.

Nonetheless, Rutter reference is cited as an example of the state of the art of dispensing/mix systems whereby a mixing and discharge system with sources 36, 36 which are connected to a nozzle 11 whereby fluid connections are provided by a flexible hoses 112a 106a.

Accordingly, in light of the knowledge in the state of the art that flexible and rigid conduits are functional equivalents, and the example of Rutter that hoses have been used as fluid connection passages in a dispensing/mix system, it is deemed that it would have been obvious to one of ordinary skill in the art to substitute the conduit connections, without undue experimentation, with known functional structural equivalents such as a flexible conduit or as appropriate a rigid conduit so as to provide ease installation and routing between obstructions, or a more effective structural integrity of the conduit.

With regards to claims 4-9, the Thumm (et al) reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of the check valves 166, 160 being shut off valves; the check and shut off valves 180, 182 being a gun valve; and with the exception of the mixing chamber being connected to a robot arm (claim 6).

With regards to the valves, the use of shut off valves, check valves, and gun valves are all old and well known in the art and are of a commonly accepted invention called "valves". This class of invention is common in the art of fluid handling and is old and well known to produce a selective shut off of flow of fluid material. Thereby it can be deemed by the examiner that shut off valves, check valves, and gun valves are

common known structural equivalents for a selective stoppage of flow and thus, it is deemed that it would have been obvious to one of ordinary skill in the art without undue experimentation to select any of the known structure of a valve such as the use of shut off valves, check valves, and gun valves to produce an expected result of a selective shut off of flow

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thumm et al 6221332 in view of Rutter 3056591 as applied to claim 7 above, and further in view of Carson6007227.

Thumm et al 6221332 in view of Rutter 3056591 discloses all of the recited subject matter as defined within the scope of the claims with the exception of having a pressure transducer located after each respective flow meter106, 106' and the nozzle 121.

The reference to Carson teaches to a person having ordinary skill in the art of blender control systems for mixing flowable materials together that a blender control dispensing system may have a controller which reads plural sensors and transmit the sensor flow signals to control plural blend operation parameters, see column 1, lines 18-28, this includes a flow line having a 1st flowmeter 320 or 325 and a downstream pressure transducer sensor 335 is attached downstream as seen figures 1A to 1B whereby signals are sent to the system controller 210 order to provide proper blend control.

Accordingly, in view of Carson, absent any unexpected result, it is deemed that it would have been obvious to one of ordinary skill in the art to further provide for the device of Thumm with an additional pressure sensor downstream of the flow meter and the nozzle so that a controller may better sense the flow parameter status of the pressure and adjust the blend operation parameters.

6. Claims 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thumm et al 6221332 in view of Rutter 3056591 and further in view of Carson 6007227 as applied to claim 11 above, and further in view of Soechtig 4966466.

Thumm et al 6221332 as modified above in claim 11 discloses all of the recited subject matter as defined within the scope of the claims with the exception of having the dispensing/mix system being mounted on the arm of a robot.

The reference to Soechtig (cited previously), column 2, lines 19-21, disclose that mixing heads may be provided on a robot arm so a mold may be filled in a production line.

Accordingly, it is deemed that it would have been obvious to one of ordinary skill in the art to provide for the dispensing/mix system of Thumm with a robotic arm so that a portion or the entire system of the Thumm device, as modified, may be easily positioned over a mold in order to dispense material into a mold.

Response to Arguments

7. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yanagita et al 205/0048196 and Change et al 2003/0041903 disclose dispensing control systems.

9. Applicant's amendment has amended to point out a flexible conduit which necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G. Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 7:00 AM - 5:00 PM, Tues. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tony G. Soohoo
Primary Examiner
Art Unit 1723
